# **Perpendicular Lines and Line Segments**

# **Teacher Candidate**: Ian Allison **Date**:

**Lesson Title**: Perpendicular Lines and Line Segments

**Learning Targets**: *When planning/writing your lesson include the following*:

**EALR/Learning Target:** 3rd grade geometry. Standard 3.4A: Identify and sketch parallel, intersecting, and perpendicular lines and line segments. For this lesson I will be focusing on just perpendicular lines and line segments.

**TSWBAT**: Draw and describe perpendicular lines and line segments.

**Schema**: The students must have a general knowledge of shapes and should be able to use a ruler to draw a straight line. They also know what a right angle is and how they are marked.

**Assessment Strategies:** *When planning/writing your lesson include the following:*

Can be formative or summative, most of the time it will be a formative assessment.

Throughout the lesson I will be checking for student for understanding by asking questions about what I just explained. I will also have an exit task for them to complete before they leave for lunch.

**Grouping of Students for Instruction:** *When planning/writing your lesson include the following:*

Specifically how are you going to group your students for this lesson? (Groups of two, four, individual, etc.)

Students will be seated at their desks, if needed I will have the turn to their elbow partner to check answers or if they have a question while I am helping someone else.

**Learning Experiences (example: Introduction, Questions, Learning Activities, Closure, and Independent Practice):** *When teaching the lesson you need to do the following:*

This may be a repeat of some of the information already on this page but this is actually the teaching episode. It is what we will see you doing in front of the kids. We need enough detail in this section for a substitute to completely understand what they need to do with the lesson.

**Anticipatory Set:** I will review what the students learned before about parallel and intersecting lines are and tell them that there are two other types of lines that we will be going over today.

**State the Learning Target:** By the end of the lesson, SWBAT draw and describe perpendicular lines and line segments.

**Learning Episode (this is the meat and potatoes of the lesson. It is the main part of the lesson):**

After the review, I will define what perpendicular lines are while drawing an example on the board with the definition next to it.

* A line is perpendicular to another if it meets or crosses it at right angles (90°)

This means if line “A” crosses line “B” at exactly 90° then the two lines are perpendicular to one another. If they don’t cross at 90° then they are only intersecting lines.

At this time I will draw some lines on the board and ask the students whether or not they are perpendicular, parallel, or intersecting. I will have four examples, one of each that I listed before and then one drawing will be a line segment. This will lead into what a line segment is.

* A straight line which links two points without extending beyond them.

This is similar to a connect the dots picture puzzle except that the line only connects two dots instead of three or more to create a picture.

At this time I will have the students draw a line segment on their graph paper and hold it up in the air when they are done.

**Guided Practice:** I will pass out rulers and have my students (on new graph paper) practice drawing perpendicular lines and line segments. They will turn to their elbow buddy to compare answers when they are both finished. They will need to draw three perpendicular lines with the correct signs and draw three line segments.

**Closure**: I will repeat the definition for perpendicular lines and lines segments.

**Independent Practice**: I have a worksheet to pass out to the students to be completed in class and be homework if not finished.

**Instructional Materials, Resources and Technology: (Attach a copy of any materials students will use during the lesson; e.g., handouts, questions to answer, worksheets):**

*How are you boxing, crating it, setting out for the students and for you?*

These are the materials that you will use for this lesson. All the items need to be stated.

I will need a white board, markers, graph paper for the whole class, rulers, and enough homework worksheets for the whole class.

Worksheet below

